



PUBLIC WORKS DEPARTMENT

CITY OF PORTSMOUTH

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August 15, 2013

Mr. Newton Tedder
Office of Ecosystem Protection
U.S. Environmental Protection Agency – Region 1
5 Post Office Square – Suite 100
Boston, MA 02109-3912

Re: City of Portsmouth, New Hampshire 2013 NH Small MS4 Draft General Permit
Comments
General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer
Systems

Dear Mr. Tedder:

Please see attached to this letter comments from the City of Portsmouth, New Hampshire regarding the General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems.

The City of Portsmouth and numerous other New Hampshire communities have engaged the law firm of Sheehan, Phinney, Bass and Green to prepare comments to the draft 2013 NH MS4 Permit on our behalf. The comments prepared by Sheehan, Phinney, Bass and Green are incorporated into the City of Portsmouth's comments by reference.

The City's comments are broken up into two categories including General Comments and Section Specific Comments. Attached to the comments is Appendix A which includes referenced attachments.

Please call me at 603-766-1420 if you have any questions or require additional information.

Very truly yours,

Brian Goetz.
Deputy Director of Public Works

Encl.

cc: David S. Allen, P.E., Assistant City Manager w/o encl.
Peter Rice, P.E., Director of Public Works w/o encl.
Terry Desmarais, P.E., City Engineer w/o encl.
Suzanne Woodland, Assistant City Attorney w/o encl.

**Comments to the US Environmental Protection Agency
from the City of Portsmouth, New Hampshire
August 15, 2013**

Thank you for the opportunity to provide comment with regard to the proposed changes to the 2013 Draft General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4s) in New Hampshire. The City of Portsmouth and numerous other New Hampshire communities have engaged the law firm of Sheehan, Phinney, Bass and Green to prepare comments to the draft 2013 NH MS4 Permit on our behalf. The comments prepared by Sheehan, Phinney, Bass and Green are incorporated into the City of Portsmouth's comments by reference.

The City of Portsmouth, New Hampshire with a population of approximately 21,000, consists of approximately 17 square miles and is located on the Piscataqua River basin. Portsmouth's City storm drain infrastructure consists of approximately 323,000 lineal feet of pipe, 4,700 catch basins or manhole structures and 450 outfalls. This proposed General Permit would be applicable to the City's Separated Storm Sewer System, and as such, the City is providing the comments herein.

The City of Portsmouth agrees with the intent and goal of the Clean Water Act (CWA), however; we would like to reiterate our comment to the 2009 Draft MS4 General Permit that the proposed regulations are excessively burdensome and some components will not help achieve clean water or be attainable within the five year permit period. Several general comments applicable to the overall permit conditions are provided at the beginning of this document, and subsequent comments more specific to the requirements are provided in the same sequential order as listed in the Permit.

General Comments:

1. The Permit, as drafted, would create a significant administrative and financial burden for the City that would detract from its ability to provide direct benefits to water quality through such activities as increased street sweeping, increased catch basin cleaning, removal of illicit

discharges, and/or conducting inspections of construction sites. The City's consultant has estimated that approximately 2,800 total staff hours, or approximately 560 staff hours per year, would be required to comply with the administrative components of the draft Permit such as tracking and annual reporting. The total estimated cost to comply with this Permit, an additional \$3,500,000 over the five year permit cycle, would constitute a 8-12% increase in the City's current Public Works budget. Therefore, without an additional funding source other essential City programs would need to be reduced or cut to accommodate these expenditures. See Appendix A for spreadsheet relative to these expenditures.

2. Many of the deadlines provided in the draft Permit do not allow sufficient time to allocate funding to complete the tasks required. The City's fiscal year runs from July 1 to June 30th every year. The City's budget process requires months of planning, hearings, and work sessions before final approval by the City Council. The budget process for the City's next fiscal year generally begins in October with a final vote expected in late May or June. The City requests that no item in the permit be required to be completed during the first Permit Year except the preparation of the Stormwater Management Plan (SWMP) to allow the City enough time to present additional fund requests and justification to City Council.

3. The draft Permit would require compliance with Total Maximum Daily Load (TMDL) immediately, or no later than the date set forth in the TMDL. This approach is not consistent with the CWA provisions relating to the MS4 general permit and would likely result in immediate non-compliance upon issuance of the permit.

4. The draft permit holds the MS4 permittee liable for illegal acts/discharges from a third party, such as individuals, industries, neighboring municipalities, and State or Federal Agencies. It is requested that permit be modified or clarified not to hold the permittee liable for the third party stormwater contributions.

5. New and additional stormwater flow to impaired waters regardless of concentration would be prohibited under this draft permit. This requirement presumes that the added discharge causes or

increases the impairment without any sampling or confirmation of the possible impairment. There may be instances where additional stormwater flow might be better than the receiving water body especially if it is from in-place BMPs.

6. The City has already implemented numerous stormwater BMP projects in recent years. These have included the retrofit or installation of improved stormwater handling and treatment structures such as tree box filters and rain gardens. The City has also worked with community organizations and residents to assist with these installations on private property. These are in addition to other parcels in the City which have been developed with their own stormwater BMP installations. A credit should be available to municipalities such as Portsmouth that have been proactive in this area.

7. The draft permit has extensive tracking and reporting for nearly every required action many of which are redundant as they will be included as part of annual reporting. Please review these requirements and make an effort to consolidate the reporting within the annual report.

Section-Specific Comments:

Section 2.1.2.b.iii New or Increased Discharges to Impaired Waters: This provision states that there is no net increase in loading allowed from an MS4 to impaired waters of any pollutant for which the water body is impaired. A large portion of the City of Portsmouth discharges storm water to the tidal waters such as the Piscataqua River, Sagamore Creek, Back Channel, North Mill Pond, South Mill Pond, and Great Bay Estuary and non-tidal waters including Pickering Brook, Hodgson Brook, Newfields Ditch, and Berry's Brook which are all water bodies presently identified as impaired. This provision in the new draft permit could cripple future development, bringing a halt to growth and redevelopment within the City. Unreasonable and unrealistic restrictions that stifle growth only harm a municipality's ability to make future investments in environmental improvements. The City of Portsmouth has protective and thorough site review regulations relative to stormwater management (See Appendix A) and a well established technical process for review of new developments, but as a practical matter,

even the installation of the latest technology and the use of best management practices to limit loadings, are not 100% efficient. Increased loadings to impaired water bodies are likely in any growth/redevelopment scenario.

Section 2.2.1 and Appendix F Discharge to an Impaired Water with an Approved TMDL: The City of Portsmouth has a combined collection system and is regulated under a separate NPDES permit for discharges of combined sewer overflow during wet weather events. The combined sewer overflows (CSOs) discharge to South Mill Pond and Lower Piscataqua River – South and are being addressed as part of a Consent Decree to reduce combined sewer overflows from these outfalls. The primary source of bacteria in these water bodies is likely due to point source combined sewer overflows and reporting obligations should be handled under the NPDES permit. This requirement for additional reporting is redundant. The City of Portsmouth recommends it be removed or modified for communities with combined sewer systems.

Section 2.2 Discharge to Impaired Waters: Many of the current impairment listings for water bodies to which Portsmouth discharges are based on sample data that is limited or that is aged and may not represent current conditions. Some of the data, for example, was collected in 2006, a period of record-setting precipitation events for the seacoast area. Consequently, data may be atypical due to the extreme amount of rainfall and increase in erosion and runoff into the storm drain system. Sampling in years prior or post 2006 may more accurately reflect conditions. Below are a few examples of inconsistencies or inadequacies in the sample data:

- Borthwick Ave. Brook/Tributary – No sample data for pH since 2008.
- Upper Hodgson Brook – No sample data for Manganese.
- North Mill Pond – Repairs to failing sewer line have been completed (2009) and several IDDE have been removed.

For the impairment listings where there is a lack of sufficient or current data, and where remedial activity may have improved water quality, Portsmouth suggests that NHDES actively review the

listing and work with the community to obtain the most up to date and accurate data for reevaluation.

Section 2.2.2 Discharge to an Impaired Water without an Approved TMDL: The City of Portsmouth believes it is the responsibility of the State of New Hampshire and the USEPA to identify sources of impairments. The requirements of this section to evaluate and identify sources of impairments are not the responsibility of the City. This exemplifies the burden that the proposed permit places on the MS4's, which requires them to address water quality issues where the MS4's are clearly not the source of the impairment. EPA and NHDES should determine the primary sources of the impairments, and not assume that the MS4's are the source and require the MS4 to prove they are not the source of the impairment. This language should be removed from the permit.

Section 2.2.3 and Appendices F and H Great Bay Watershed Nitrogen Requirements: The City of Portsmouth and other communities have challenged the scientific basis for NHDES' development of the June 2009 Numeric Nutrient Criteria for the Great Bay Estuary. The June 2009 Numeric Nutrient Criteria for the Great Bay Estuary established 0.3 mg/L Total Nitrogen (TN) as the in-stream water quality threshold on the premise that elevated nitrogen concentrations have caused excessive phytoplankton growth in the water column that reduces light transparency and adversely impacted eelgrass growth in the Great Bay Estuary.

Portsmouth and other communities have provided NHDES and EPA with numerous documents and affidavits that show NHDES knew that chlorophyll a levels, the measure of suspended algae particles in the water column, has not increased in 30 years and that reducing nitrogen would not improve transparency sufficiently to meet target transparency levels for eelgrass. See for example Trowbridge Deposition excerpts in Appendix A.

Two prominent UNH research professors, Dr. Jones and Dr. Langan, who have worked in the Great Bay estuary for more than 20 years, indicated in a response letter to the Mayors of Portsmouth, Dover, and Rochester, that no research has been conducted in the Great Bay estuary

that shows nitrogen is the cause of eelgrass loss anywhere in the estuary. Letter from Mayors and Letter from Jones and Langan in Appendix A.

Dr. Steven Chapra of Tufts University a highly regarded expert prepared a review of the 2009 Nutrient Criteria document and concluded that the 2009 NHDES Nutrient Criteria document was fundamentally flawed and produced incorrect results. The Chapra Affidavit is included in Appendix A.

The additional requirements specified in Appendix H for municipalities within the Great Bay Estuary watershed for nitrogen impairment should be withdrawn until the completion of the independent scientific peer review of the 2009 Numeric Nutrient Criteria document scheduled to be performed in the fall of 2013 per an agreement between the cities of Dover, Portsmouth and Rochester, New Hampshire and the New Hampshire Department of Environmental Services. The peer review will be conducted by a panel of independent experts and will consider the methodology, analysis, and conclusions in the 2009 document as well as all the available data and pertinent research not included in the NHDES analysis. See attached Agreement in Appendix A. It should also be noted that the communities have submitted comment to NHDES on the 2012 303(d) listing objecting to the proposed nitrogen impairment listings.

It would be prudent for EPA to withdraw nitrogen requirements from Appendix H of the draft MS4 permit until such time that an appropriate nitrogen water quality threshold is determined. It should also be noted that the communities have submitted comment to NHDES on the 2012 303(d) listing objecting to the proposed nitrogen impairment listings.

The Draft December 2010 Analysis of Nitrogen Loading Reduction for Wastewater Treatment Facilities and Non-Point sources in the Great Bay Estuary Watershed was developed following the 2009 Numeric Nutrient Criteria and was based on the finding of the 2009 Numeric Nutrient Criteria document. This document should be updated once the peer review is completed and should also be withdrawn from the MS4 permit.

Portsmouth's stormwater ultimately discharges to the Piscataqua River. The river is known to have extremely high velocity currents and significant dilution. The 2009 Numeric Nutrient Criteria established the in-stream threshold for the entire estuary including Portsmouth Harbor. The numeric criteria was established to support eelgrass habitat. The areas of the Piscataqua to which Portsmouth discharges including Portsmouth Harbor are not areas that would typically support eelgrass habitat due to stream velocities and water depth.

Section 2.2.4 and Appendix H Discharges to Chloride-Impaired Waters: If the State does not implement a statewide training, certification, and salt usage reporting program for commercial salt applicators, each MS4 in New Hampshire will need to implement this requirement independently. The requirements of the permittees in this section are excessively burdensome and an unreasonable and unlawful delegation of responsibility. As we commented in 2009, it is not reasonable or lawful for the USEPA to use this General Permit to mandate that the City acquire information about the source of the chloride impairment.

Within the City of Portsmouth, there are 130 privately owned parcels of land within the eight watersheds of the surface waters that are identified as chloride impaired. In addition, a number of the major roadways within the watersheds, including Interstate 95, Routes 1 and 1B, and the Spaulding Turnpike are maintained by the State of New Hampshire. Requiring the City to obtain information about the quantity of chloride-based deicing chemicals applied during each storm event at each of the 130 parcels that contain private or public parking lots or roads is anticipated to cost the City \$5,600 annually. Winter operations are a significant public works budget expense and staff are keenly aware of salt use from a cost perspective. Portsmouth has implemented automated equipment to uniformly lay down salt which adjusts to vehicle speed, and the staff has been certified by New Hampshire Green SnowPro program in order to implement salt reduction in the following areas: Equipment Calibration, Anti-Icing, Brine Making, Pre-wetting with Brine and Other Liquids, Efficient Application Rate Changes with Pavement Temperature, Effective Plowing, Emerging Technologies, Salt Accounting, and Environmental Impacts.

The remainder of the Chloride Impaired Water program described in this draft Permit includes requirements for those non-municipal entities to conform to specific application rates, to calibrate application equipment, to cover their piles, and a requirement to educate those entities on best management practices for deicing materials. This is a significant enforcement burden. The City of Portsmouth believes the TMDL documents, not this General Permit, should specify the corrective actions necessary and this section should be removed.

Section 2.3.2 Public Education and Outreach: While the City appreciates that the EPA provided more time to conduct the public education program in this draft of the permit, the City is reiterating its comment from the 2009 permit: Current studies show that the majority of the public does not understand how stormwater can become polluted and how it can contribute to water quality issues. Most of the public still believes that catchbasins in their roads transport stormwater to a treatment facility prior to discharge. In addition, most people do not understand the concept of a watershed, or the concepts related to the water cycle (rainfall, runoff, infiltration, and evapotranspiration). A significant amount of awareness-raising must be done across the United States prior to an individual community education/outreach campaign in order to truly stimulate behavior changes in the general public. The City of Portsmouth, like many other municipalities, sees a large influx of visitors during the tourist season and thus education must extend well beyond the immediate locality to be truly effective.

The City supports the requirements to provide public education materials related to the four sectors identified in the General Permit, however it is beyond any individual municipality's means to conduct a truly meaningful effective campaign. A national education program, such as that promoted by Keep America Beautiful in the 1970's, could provide a consistent and transferable message that regulated MS4s could use in developing further promotional materials. At a minimum, the USEPA should provide a template or umbrella program for education of stormwater issues that each municipality could modify to be specific to the municipality's waters. Engaging a public relations firm to identify messages that can be effective is a lengthy and expensive process that should not be imposed upon smaller communities or single cities. It will likely take any party at least 6 months to identify a target audience and message, and

develop an evaluation protocol. The USEPA is in a better position to create and evaluate the effectiveness of any public education messages. The City of Portsmouth has participated with the Seacoast Coalition on storm water educational initiatives in the past and is particularly sensitive to the need for a properly funded, broad sweeping public education program in lieu of inadequately-funded local initiatives.

2.3.4 Illicit Discharge Detection and Elimination Program: The proposed schedule for completion of an IDDE work under the new permit is unreasonable. Portsmouth has been upgrading its stormwater system over the last 20 years and has removed numerous illicit connections. As a result, most of Portsmouth's illicit connections have been identified and removed and we continue to upgrade the stormwater system and investigate possible areas of concern. Requiring the City to sample every outfall under this permit is redundant and does not acknowledge the effort and work already completed. Requiring sampling of every discharge location regardless of past work is not productive, cost-effective, or helpful in attaining water quality improvements.

2.3.4.4 a through e: The City is reiterating its objection to regulation of Sanitary Sewer Overflows (SSOs) in this Permit. Most municipalities or quasi-municipal sewer districts, including the City of Portsmouth, are required to report to the USEPA on SSOs and removal and address SSOs as part of their NPDES permits for their wastewater treatment plants. This requirement for additional reporting is redundant. The City of Portsmouth recommends it be removed from the General Permit Requirements.

2.3.4.6 System mapping: The required mapping elements include indication of all use impairments as identified in the state's most current 303(d) list. This information is complex and all of it cannot be displayed on a map in a manner that is legible without significant effort. The City respectfully requests clarification on the intent of this requirement so it may properly display the information.

2.3.6.8 Directly Connected Impervious Area: The requirement to complete an inventory and prioritization of MS4-owned property and infrastructure that may have the potential to be retrofitted is a burdensome and unreasonable requirement. The City of Portsmouth owns 184 parcels of land totaling 1,140 acres. The City estimates a cost of at least \$54,000 to complete this task. Those funds could be better spent on already identified storm water treatment infrastructure needs and operational activities. Retrofits should be applied as corrective measures for areas that are already impaired from polluted stormwater runoff, or as opportunistic when a property is already planned for redevelopment. This requirement should be removed from the General Permit.

Appendix E Notice of Intent: The suggested form provided by the USEPA in Appendix E requires that information related to the 2003 SWMP be provided. The City of Portsmouth has submitted annual reports that already provided this requested information. In addition, the NOI requires that dates and responsible parties and description of BMPs associated with the SWMP be submitted with the NOI. The NOI is due within 90 days of the effective date of the permit. However the SWMP is not due to be completed until the end of the first permit year. This NOI form effectively shortens the SWMP deadline to 90 days. Please remove the requirements to provide 2003 information and new SWMP information as part of the NOI.

Thank you for the opportunity to provide comments to this proposed permit for stormwater discharges from small municipal separate storm sewer systems.

Appendix A

Description	Author	Date
<i>Estimated Costs to Comply with Draft MS4 Permit</i>	<i>City of Portsmouth</i>	<i>February 2013</i>
<i>Site Plan Review Regulations</i>	<i>City of Portsmouth</i>	<i>February 16, 2012</i>
<i>Elevated TN Did Not Cause Increased Algal Growth Impacting Transparency – Trowbridge Deposition</i>		<i>June 23, 2012 and July 11, 2012</i>
<i>Causes of Periodic Low DO Unknown – Trowbridge Deposition</i>		<i>June 23, 2012</i>
<i>Exclusion of Prior Studies from Record – Trowbridge Deposition</i>		<i>July 11, 2012</i>
<i>TN Control Ineffective in Tidal Rivers – Trowbridge Deposition</i>		<i>July 11, 2012</i>
<i>Letter from Mayors of Dover, Portsmouth and Rochester to Pennock, Jonathan, Ph.D., Langan, Richard, Ph.D., Jones, Stephen H., Ph.D. re: Request for Input on Results of Prior Research Conducted to Evaluate Nutrient Impacts on Great Bay Estuary</i>	<i>Spear, Eric, Trefethen, Dean, Jean, T. J.,</i>	<i>January 1, 2013</i>
<i>Letter from UNH to Spear, Eric, Trefethen, Dean, Jean, T. J. re: Request for Input on Results of Prior Research Conducted to Evaluate Nutrient Impacts on Great Bay Estuary</i>	<i>Langan, Richard, Ph.D., Jones, Stephen H., Dr.</i>	<i>February 19, 2013</i>
<i>Declaration of Steven C. Chapra, Ph.D., F.ASCE – Assessment of Whether the Department of Environmental Service's Approach to Nutrient Criteria Derivation for the Great Bay Estuary Used Reliable, Scientifically Defensible Methods to Derive Nutrient Criteria, Environmental Appeals Board, US EPA</i>	<i>Chapra, Steven C., Ph.D., F.ASCE</i>	<i>February 27, 2013</i>
<i>Peer Review Agreement between Dover, Portsmouth, Rochester, NH (the "cities") and the Department of Environmental Services (DES)</i>	<i>Kinder, Tupper E., Peltonen, John. E, Burnett Young, Sherilyn, Burack, Thomas</i>	<i>April 29, 2013</i>